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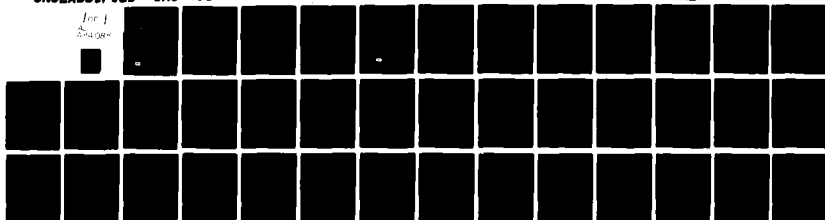
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THE EFFECT OF UI ADMINISTRATIVE SCREENING ON JOB SEARCH

Louis Jacobson
Ann Schwarz-Miller

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Two effects of work test screening are examined by studying denial of benefits: the direct effect of denying benefits to those found not to be searching and the indirect or "deterrent" effect on the claimant population as a whole. Separate models are estimated to examine each effect using an unusually detailed microdata base for a sample of 700 claimants in Arizona during the period 1967-69.

The key conclusion of the study is that the threat of a severe penalty, i.e., the long term disqualification of a claimant, encourages a substantially faster return to, at least, part-time work. This finding explains why earlier, more aggregative, studies showed that small increases in denial rates were correlated with large reductions in unemployment. In addition, we concluded that a mild penalty, i.e., a disqualification with no loss of benefit entitlement, was too weak to have measurable effects. ←

Finally, the study examined screening designed to ensure that claimants who quit their jobs did so for "compelling personal reasons" which is one of the eligibility criteria. The key conclusion here was that claimants who could not establish "good cause" for their quits were generally not seeking work.

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Louis Jacobson
Ann Schwarz-Miller



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ABSTRACT

Unemployment insurance (UI) is intended to help people who are temporarily unemployed and seeking suitable employment. It is not intended for individuals who are unable or unwilling to work.

Although there are rules stating who is eligible to receive benefits they are not always easy to apply. To distinguish applicants who meet the criteria from those who don't, claimants are screened in UI offices to determine whether they are truly eligible for benefits.

This paper examines the degree to which screening reduces unemployment and whether the screening procedures used are appropriately targeted on individuals who have little interest in returning to work. The primary focus is on the "work test" which is a form of screening designed to determine if an otherwise qualified individual is actively seeking suitable work.

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TABLE OF CONTENTS

	<u>Page</u>
List of Tables	v
Introduction	1
UI Screening	1
Models of Job-Search Screening	4
Estimation	6
The Direct Effects of Screening	9
The Indirect Effect of Screening	19
The Effect of the Threat of Denial on Duration	22
The Effect of the Threat of Denial on Return to Work	22
Quit Screening	24
Conclusions	26
Bibliography	29

LIST OF TABLES

1	UI Screening	2
2	Selected Characteristics of Sample	8
3A	Duration Regression	10
3B	Set of Explanatory Variables in Search Outcome Equations	11
4	Definitions of the Ten "Outcome" Variables	15
5	The Effect of the Work Test on Job-Search Outcomes: Coefficients of Four Work-Test Screening Variables	17
6A	Probability of Permanent Denial Regression	20
6B	Variables Included in Equation (2) but Excluded from Direct Effect Equations	21
7	The Effect of the Probability of Work-Test Denial on Job-Search Outcomes: Coefficients of the Probability-of-Denial Variables	23
8	The Effect of Quit Screening on Job-Search	27

INTRODUCTION

Unemployment insurance is intended to help people who are temporarily unemployed until they are able to find suitable employment. It is not intended to be a general income maintenance program for individuals who are unable or unwilling to work.

Although the rules by which eligibility for benefits are clearly stated, it is not always easy to distinguish between those who meet the criteria and those who don't. All states use some kind of screening procedure to determine whether a claimant is truly eligible for benefits.

Administrative screening has received less analysis than it probably merits. Most UI studies have focused on the incentives associated with benefit levels and their effects on individual job-search decisions or on firm-layoff behavior [1, 2, 4]. The evidence consistently shows that more generous benefits induce more unemployment and, therefore, higher costs to the UI system.

The few studies of screening, notably those by Holen [6] and Holen and Horowitz [7], shows that screening reduces the duration of unemployment and, therefore, UI payments, but not to the detriment of job search. The study reported here reaches similar conclusions.

Our study examines the degree to which unemployment insurance administrative screening reduces unemployment and the number of UI payments, and whether screening is, in fact, applied to individuals who have little interest in returning to work.

UI SCREENING

Screening is any activity by the UI staff to check the qualifications of UI claimants. As shown in table 1, screening takes many forms. When an individual first makes a claim, monetary eligibility is checked to set the benefit entitlement (if any). The individual's reason for separation is also examined. If the claimant quit his last job without "compelling personal reasons," he can be paid UI only after a waiting period or not at all.

After the initial tests are passed, screening for continued monetary eligibility is required for each payment. If the claimant has worked in a given week and earned more than a certain minimum, his benefits will be reduced. Claimants are also checked for miscellaneous reasons such as whether unemployment is due to a labor dispute or there has been an overpayment.

TABLE 1

UI SCREENING

I. INITIAL SCREENING

- A. Monetary Eligibility: has sufficient prior earnings, not receiving vacation pay
- B. Reason for Separation: has quit for compelling personal reason, been fired, or laid off

II. SUBSEQUENT SCREENING

- A. Monetary Eligibility: has no part-time work
- B. Sufficient Search Activity - the "work test":
 - 1. ABLE: is neither ill nor caring for dependents
 - 2. AVAILABLE: is searching
 - 3. REFUSAL: has not turned down suitable work

III. MISCELLANEOUS

- A. Labor Disputes
- B. Payment Errors

Aside from those basic eligibility checks, claimants must satisfy a work test involving three parts. First, he must be able to work--and not be ill or forced to stay home to care for dependents. Second, he must be available for work. That is, the claimant must actively search for work and not be away on vacation or attending to household chores. Finally, he must not have refused suitable work.

The penalties for failing the different screens vary widely. Failure of the "able" condition of the work test often leads only to what in the UI system is called a "definite denial" of benefits for one week with no loss of potential payments. Occasionally, an "indefinite denial" will result from a long-term inability to work for such a reason as the need to take care of a child. In this case, the denial is not for a fixed period, but continues until the individual can again satisfy the able condition.

Failure of the "available" condition leads to denial of payment for one week with no loss of potential payments.

Failure of the "refusal" condition leads to an "indefinite denial." In this case, however, the claimant must return to work and earn from four to ten times the weekly benefit amount before reestablishing eligibility. For clarity, we will call the indefinite denial a permanent denial and the definite denial a one-week denial.

We examined all the types of screening listed in table 1. In this paper, we present our results for work-test screening, which was the primary focus of our work, and quit screening. The empirical work examines screening in Arizona in 1967, 1968, and 1969--a period of strong economic growth nationwide and a particularly prosperous time in Arizona. Thus, it is unlikely that workers would have had difficulty locating suitable work.

During this period in Arizona, claimants reported weekly to one of 17 local offices. To qualify for each benefit payment, a claimant had to pass a monetary eligibility review and a work test by responding to a series of standard questions asked by a claims deputy. Occasionally, as a result of the answers, the claimant's compensation was reduced or denied on the spot, generally over a monetary issue. Typically, however, a claimant who gave a questionable response was referred to a second deputy for a special interview.

A special interview for failure to search might also have been triggered by complaints from creditors, former employers, or neighbors. The special claims deputy usually would rely on the interview to determine whether a denial was warranted, but might also obtain independent verification of information furnished by the claimant. For example, the deputy might call the employers where the claimant said he had inquired for work.

Reports of these special screening activities are filed, along with other pertinent information, for each claimant. Although the laws are uniform across the state and there is probably little variation in the ratio of administrative resources to claims load at any given time, the incidence and frequency of these special work-test interviews varied across local offices and over time. Variation may have resulted from differences in the management of the local office, short-run increases in local layoffs, or other sources of differences in claimant characteristics. For example, in one office, most claimants might have been temporarily laid off for a short period and thus require a little special screening. In another office, most claimants might have quit or have had a weak attachment to a single employer. Because of the difference in work loads, a claimant who has permanently lost his job who goes to the first office will have a higher probability of being screened than an otherwise identical person who goes to the second office. It is this type of variation in the probability of special

screening activity, which is independent of personal characteristics or work history, that is the focus of this study. Thus, when we use the term "work-test screening," we will mean these special screening interviews.

MODELS OF JOB-SEARCH SCREENING

Most studies of UI have used an income maximizing job-search model to describe the effect of UI benefits on search. In such a model, individuals receive no value from leisure. Thus, there is only a minimum role for screening activity and practically no role for the work test.

A more complex and realistic model of labor force activity must be used to explain how screening affects search. The more realistic model includes leisure as a choice facing a worker. In such a situation, UI benefits will encourage workers to search longer for new jobs just as it would in the simpler income maximization model; but now UI benefits will also encourage workers to consume more leisure at the expense of both search and work. The work test will have the effect of setting a minimum level of job search. For some workers, it will constrain their choice set by, at least in theory, forcing them to increase search or lose benefits.

If all workers followed the search standards set by the UI system, some workers who would fail the work test would not file while others would bring their search levels up to the minimum standards. In practice, however, full voluntary compliance cannot be expected. Thus, screening is applied.

Theory suggests both direct and indirect effects of screening. Increased work-test screening should affect workers who are, in fact, denied benefits, the larger the penalty, the greater the effect. Thus, a one-week denial (with no loss of potential benefit payments) may have little effect on a worker who is not searching--the loss may be only the cost of waiting an extra week before a payment is received. A permanent denial will be much more costly because the worker must usually take and hold a job before he is eligible for further benefits.

Work-test screening may also have indirect effects. These effects could be far greater than the direct effects.

First, a worker who is denied payments, even for one week, may feel that he is a likely target of subsequent denial--much as a motorist stopped for speeding on a certain stretch of road will often slow down when traveling the same stretch in the future.

Second, and more important, workers who have not been denied are likely to take into consideration the threat of future denial in determining their job-search strategy. A worker who finds that many of his fellow claimants are being more carefully screened may well modify his

behavior to avoid being penalized--just as many motorists will slow down when passing a speed trap, though only a few may be ticketed.

Based largely on these theoretical considerations, we will examine the effect of screening on three groups of claimants:

- Those denied benefits in a given week
- Those denied benefits in an earlier spell
- Those not denied at all but subject to the threat of denial.

Further, theory suggests that effective screening will encourage some workers, who would otherwise search less than required, to search more. Such workers will return to work sooner and increase their earnings. On the other hand, effective screening will cause some claimants to stop collecting benefits, but will not cause them to search for work. Such workers will, therefore, remain out of work and be properly classified as out of the labor force. The relative importance of these two effects is a key issue examined in this study. We therefore measure the effects of screening on:

- Duration of unemployment and number of UI payments received
- Outcome of the job search process--whether the claimant returns to work.

The key findings are that:

- One-week denial has no effect on benefit outlays; it merely lengthens the duration of the claim.
- Permanent denial substantially reduces the benefits paid to those denied.
- The threat of denial substantially reduces the number of payments received by claimants. It strongly encourages claimants to return to at least part-time work.
- Moreover, denial of benefits appears to be targeted on the appropriate population. This conclusion is supported by these findings:
 - Those denied show little evidence of job search.
 - The probability of denial is greatest for claimants whose characteristics are associated with weak labor force attachment.

ESTIMATION

To reach these conclusions, two separate estimating procedures are used. The effect of screening on those actually denied benefits is estimated using equation 1. For those who are not denied or screened, a two-stage procedure is used. First, the probability of being denied benefits is estimated using equation 2. Then the estimated probability is used as a determinant of the search outcome modeled by equation 1.

In equation 2 in this system, the independent variation in denial probability must come from variation in local office characteristics. If such variation is absent or weak, we will not be able to identify the system and distinguish the effect of the threat of denial that presumably reduces duration, from the characteristics associated with being denied, which lead to longer duration.

Before discussing the estimation in detail, we will briefly discuss the data set used. The data consist of a very large microdata set drawn

$$\text{search outcome} = f(\bar{S}_i, \hat{PS}_i, \bar{C}_i, \bar{WH}_i, \bar{UI}, \bar{MKT}), \quad (1)$$

where

\bar{S}_i = screening activities to which the individual has already been exposed, including loss of benefits and payment delays

\hat{PS}_i = claimant i's probability of being screened in future weeks

\bar{C}_i = claimant i's characteristics

\bar{WH}_i = claimant i's work and unemployment history

\bar{UI} = unemployment insurance parameters (weekly benefit amount, weeks of remaining eligibility)

\bar{MKT} = labor market characteristics.

$$PS_i = F(\bar{C}_i, \bar{WH}_i, \bar{MKT}, \bar{S}_i, \bar{LOR}) \quad (2)$$

where

PS = probability of being involved in a screening activity for claimant i

\overline{C}_i = claimant i 's own characteristics

\overline{WH}_i = claimant i 's work and unemployment history variables

\overline{MKT} = labor market characteristics

\overline{S}_i = screening activities to which the claimant has already been exposed in the current spell, including loss of benefits and payment delays

\overline{LOR} = local office resources available for screening activities

from administrative records maintained by the UI system in Arizona (see [9] for a complete description). The data includes demographic and work-history data and detailed information about the UI claims. We could determine, for any given week, whether the worker collected benefits or was denied benefits and, if denied, the reason for denial. We also knew when the worker stopped working and each time he reported to the UI officer to make a claim. An important omission is precise information about when the worker returned to work.

Although the data base contains over 100,000 separate claims, we found that a sample of 700 different individuals, including about 1000 separate spells of unemployment was sufficient for the analysis. The unit of observation is the claimant contact. A claimant contact occurs each time a claimant reports to a local office and requests a payment. On average, a spell consisted of 6.6 claimant contacts. Thus, the sample consists of about 6600 separate observations.

Claimant contacts were used as the unit of observation for a number of reasons. First, the timing of the denial within the spell is important. If denial procedures are to be most effective, they should be targeted on workers with long expected duration. One way for claimstakers to determine which workers will have long expected duration is to screen individuals only after five weeks of claims. The effect of denial should be measured by comparing the subsequent actions of those denied with the subsequent action of workers not denied but with the same elapsed duration. Use of claimant contact simplifies this type of comparison.

Second, variation in screening across local offices is a cross-sectional phenomenon. Screening effects therefore are better captured by an estimation procedure that considers screening as an action imposed

on some of the claimants who show up to collect benefits each week, not on a given claimant sometime during his spell.

Table 2 displays some key characteristics of the claimant population. Those claimants who return to work experience unemployment spells of 5.69 weeks on average. Claimants who do not return to work experience spells of 9.18 weeks. The substantial difference, about 3-1/2 weeks, suggests that UI claimants are made up of two separate groups—workers with short durations who are likely to return to work and workers with long durations who are relatively unlikely to return to work.

TABLE 2
SELECTED CHARACTERISTICS OF SAMPLE

	Unemployment duration (weeks)	Percent of workers
Claimants who return to the same employer	4.91	30.0
Claimants who change employers	6.02	27.6
Claimants whose job change is ambiguous	6.52	14.8
All claimants who return to work	5.69	72.3
Claimants who do not return to work	9.18	27.7
All claimants	6.66	100.0
Claimants who quit	8.05	12.8
Claimants who exhaust benefits	18.43	10.9

Screening probably has little effect on those who rapidly return to work. On the other hand, claimants with long durations, who do not return to work may not be searching above the minimum standards. Such workers are therefore the appropriate target of screening activity. As we shall see, this is, in fact, the group most likely to be screened. Of course, we do not expect that all workers screened will be denied benefits. Despite the exceptionally strong labor market in Arizona, some workers who have long durations and fail to return to work may have had trouble finding suitable work.

The Direct Effects of Screening

Table 3A shows the equation used to estimate (DUREND), the duration of unemployment from a specific claimant contact to the end of the UI claim. This OLS regression included four groups of variables used to control for differences between screened workers and those not screened and one set of variables describing the screening activities themselves. The precise definitions of the variables are in table 3B. Most of the coefficients are statistically significant and have signs consistent with expectations. The overall explanatory power of the regression ($R^2 = .17$) is high for this type of analysis.

The key variables describing the direct effect of the work test are in the lower left-hand corner of the table. WTDIND indicates that a claimant was permanently denied benefits. A permanent denial reduces duration by 4.6 weeks. The reduction in duration is not surprising, given that by definition the spell ends with the last claimant contact; and few of those permanently denied are able to requalify. The magnitude of the effect, however, is evidence that those denied would otherwise have continued to claim for a substantial period. The denial itself generally occurs considerably after the start of the spell, and the duration of an average claimant is only about 6.6 weeks.

The next variable, WTDDEF, indicates a claimant received a one-week denial. This coefficient is not significantly different from zero; but it indicates, if anything, that those denied have somewhat longer duration than apparently similar claimants not denied. WTSND indicates that a claimant was screened but not denied, presumably because he was searching appropriately. That this coefficient is also not statistically significant may simply reflect the small sample of claimants in this category. The coefficient is large and indicates that those screened but not denied are unemployed 3.6 weeks less than otherwise similar claimants.

Finally, we come to PWTDF, which indicates a claimant failed the work test in an earlier spell. Once again, the sample is small, and the coefficient is not significant, but the point estimate indicates some possible deterrent effect of screening on subsequent claims.

OLS regressions with precisely the same specification shown in table 3A were used to examine nine other effects of screening.*

* The OLS regression used in this analysis are likely to produce inefficient estimates of the effect of screening when the dependent variables are bivariate. In such cases, logit regression would be more appropriate. OLS was used in this initial work because it enable us to examine alternative specifications and sample sizes at a reasonable cost. We hope to reestimate these final equations using logit and/or other maximum likelihood technique in the near future.

TABLE 3A

DURATION REGRESSION
(DEPENDENT VARIABLE 'DUREND' — WEEKS OF UNEMPLOYMENT
FROM CLAIMANT CONTACT TO END OF SPELL)

Group I.	Sex,	Race	Age		
MALE	WHITE	WH	AGE	AGEUN	
-1.8995	0.4172	-1.1446	0.0713	8.3974	
-9.1402	1.8475	-2.3982	8.9321	9.3268	

Group II. A.	Prior Work History					
TENURE	TUN	BYE	PEINC	PNE1	PE2	PNE2
0.0333	0.1037	-0.0001	3.3223	-0.7333	-0.0002	-0.0694
0.9105	0.2875	-1.2828	4.9319	-4.8197	-3.3482	-0.6794

Group II. B.	Industry				
GOVT	MILIT	MIN	CONSTR	MFG	
3.2442	2.0863	2.3584	-0.4933	0.2597	
4.7390	3.2700	2.9337	-1.5788	1.1811	

Group III.	Labor Market Strength			
CHEMPL	YR1	YR2		
-0.0561	-1.2948	-1.5432		
-1.8105	-4.1212	-3.9074		

Group IV. A., B., C.	Unemployment History and Entitlement								
T	TSG	SWMH1	CAPH1	WSA	POTDUR	SPELL	PUNH1	PUR	
-0.2287	-0.0022	-1.3688	-2.1984	0.0333	0.1320	-1.0389	-0.0184	0.080	
-8.2038	-2.4917	-3.0847	-2.3163	3.9644	6.1163	-6.2410	-0.4033	1.5274	

Group IV. D.	Separation Reason				
DISC	QUIT	FILE	FILEUN	PEN	
0.8031	-0.2721	0.1068	1.9367	0.0113	
2.9263	-0.8712	3.8299	6.9716	0.0816	

Group V. A., B., C. Screening Actions

DSRD	DSRND	DVCD	DVCND	PID	PISND		
0.2441	0.6631	2.4442	-0.4015	-0.3746	-0.1843		
0.3942	2.3062	7.7029	-0.8412	-1.4323	-0.4316		
WTDIND	WTDDEF	WTSND	PWTD	QDD	QDM	QDTMM	POD
-4.5731	1.5913	-3.5947	-1.8109	-0.9232	-3.0436	0.1978	-3.4726
-3.6409	1.3732	-1.1763	-1.3513	-0.7618	-3.1268	2.4527	-3.5846

CONSTANT	SL/F	RSQ/AFSQ
3.1905	6.8017	0.1761
3.4816	28.7063	0.1699

TABLE 3B

SET OF EXPLANATORY VARIABLES IN SEARCH
OUTCOME EQUATIONS

I. Demographic Characteristics

- 1. MALE = 1 if sex is male; 0 otherwise
- 2. WHITE = 1 if race is white, 0 otherwise
- 3. NW = 1 if race is nonwhite; 0 otherwise

(Omitted group is race unknown)

- 4. AGE = age in years
- 5. AGEUN = 1 if age unknown; 0 otherwise

II. Work History Variables

A. Earnings and Employment Duration

- 6. TENURE = number of consecutive quarters prior to unemployment in the same industry (back to 1963)
- 7. TUN = 1 if tenure is unknown; 0 otherwise
- 8. BYE = base year earnings - earnings in the first four of five quarters preceding first claim in the benefit year
- 9. PEINC = prior earnings incomplete = 1 if wage records are missing for any part of base period
- 10. PNE1 = number of quarters in year prior to spell with zero earnings
- 11. PE2 = prior earnings in year two years prior to spell (first four of last eight quarters)
- 12. PNE2 = number of quarters in year two years prior to spell with zero earnings

TABLE 3B (Cont'd)

B. Primary Industry

- 13. GOVT = 1 if industry of primary employer in base year was government
- 14. MILIT = 1 if industry of primary employer in base year was the military
- 15. MIN = 1 if industry of primary employer in base year was mining
- 16. CONSTR = 1 if industry of primary employer in base year was construction
- 17. MFG = 1 if industry of primary employer in base year was manufacturing

(omitted group includes agriculture and services: wholesale/retail trade, banking, entertainment)

III. Labor Market and Timing Characteristics

- 18. CHEMPL = percentage change in employment over the past year in the claimant's local labor market (county of the local UI office)
- 19. YR1 = 1 if year is 1967; 0 otherwise
- 20. YR2 = 1 if year is 1968; 0 otherwise (1969 is the omitted year)

IV. Unemployment and Spell Specific Variables

A. Timing of Claimant Contact

- 21. T = week of spell
- 22. TSQ = week of spell squared

B. Prior Week Variables

- 23. SWKM1 = some work in week prior to current week (t-1)

TABLE 3B (Cont'd)

24. GAPM1 = gap in week t-1 - 1 if the claimant did not file for benefits in week prior to t (the variable would reflect either earnings above the cutoff level for partial payment or total withdrawal)

C. Variables Fixed at Start of Spell

25. WBA = weekly benefit amount
26. POTDUR = potential duration - number of weeks of full benefits payments remaining at start of spell
27. SPELL = number of spells in benefit year preceding current spell
28. PUNW1 = prior weeks unemployed in four quarters prior to start of spell
29. PUNS1 = prior spells of unemployment in four quarters preceding current spell

D. Variables Fixed First Week of Spell

30. DISC = 1 if claimant was discharged; 0 otherwise
31. QUIT = 1 if claimant quit; 0 otherwise
32. FILE = filing delay - number of weeks between last day worked and date of claim
33. FILEUN = 1 if filing delay is unknown; 0 otherwise
34. PEN = monetary penalty weeks of full payment lost because of initial denial

V. Screening and Denial Variables

A. Initial Screening and Denial Variable

35. DSRD = 1 if claimant was denied benefits for inadequate separation reason
36. DSRND = 1 if claimant was screened for a separation reason violation but not denied

TABLE 3B (Cont'd)

- 37. DVCD = 1 if claimant was denied benefit because of receipt of vacation pay
- 38. DVCND = 1 if claimant was screened for vacation-pay violation but not denied
- 39. PID = prior initial denial = 1 if claimant experienced an initial denial in prior four quarters
- 40. PISND = prior initial screening but nondenial 1 if claimant was screened in past four quarters for initial issues, separation reason or vacation pay, but not denied

B. Work-Test Screening and Denial Variables

- 41. WTDIND = 1 if work-test denial was an indefinite period
- 42. WTDDEF = 1 if work-test denial was for a definite period
- 43. WTSND = 1 if work-test violation screening occurred but did not lead to a denial
- 44. PWTD = 1 if claimant was denied benefits due to work-test violation in prior four quarters

C. Other Denial Variables

- 45. ODD = 1 if an "other" denial occurred in week t (that is not a work-test, initial-separation reason, or vacation-pay denial)
- 46. ODM = 1 if an "other" denial occurred in a prior week of spell
- 47. ODTMM = number of weeks prior to week t and "other" denial occurred
- 48. POD = 1 if an "other" denial occurred in four quarters prior to spell

Table 4 describes all ten dependent variables. The second variable PYEND is analogous to DUREND. It measures the number of UI payments received from a given claimant contact to the last payment. The next variable (END2) measures the probability that a claimant will end his unemployment spell in the week following a given claimant contact. This variable is further broken down by whether or not the claimant returns to work in the four quarters following the start of the spell.

EXHST measures the probability that a worker will exhaust benefits. Finally, we have four variables related to the return to work. LRJOB measures the probability that a worker will return to work in the four quarters following the start of the spell, independently of END2. The next three variables are decompositions of LRJOB based on whether the worker returns to the same employer, changes employers, or falls into a category where the worker returns to work but where employer change is ambiguous. In 80 percent of the cases where the worker returns to work, we could identify whether or not a job change occurred. Ambiguous cases generally involved the worker holding several short-term, low-paying jobs.

TABLE 4

DEFINITIONS OF THE TEN "OUTCOME" VARIABLES

1. DUREND number of weeks from claimant contact to end of spell
2. PYEND number of payments from claimant contact to last pay
3. A. END2 spell ends week after claimant contact
- B. ENDW2 spell ends week after claimant contact and claimant
 returns to work within four calendar quarters following
 start of spell
- C. ENDNW2 spell ends week after claimant contact and claimant does
 not return to work
4. EXHST claimant exhausts benefits
5. A. LRJOB claimant returns to work within four quarters
- B. SAME claimant returns to the same employer
- C. DIFF claimant changes employers
- D. AMBJOB employer change is ambiguous

Table 5 presents the regression coefficients and "t" statistics for all four work-test variables for each of the 10 equations estimated with the specification shown in table 3A. Here, we see that the permanent denials lead to the receipt of 5.6 fewer payments, an even more substantial effect than that on duration. Also, much as expected, claimants permanently denied are very likely to end their spell with the denial; but almost without exception, they do not return to work. This is important evidence that permanent denials are targeted on nonsearchers. Theory predicts that denial of benefits would cause workers who are searching for work to return to work sooner. Workers who are not searching would not modify their search behavior and simply drop out of the labor force.

In contrast, we see that claimants with one-week denials did not have reduced unemployment duration nor did they receive fewer payments than they would have otherwise. The coefficients of the DUREND and PYEND variables suggest that the main effect of a one-week denial is to increase duration long enough to collect the missed payments. Also, not surprisingly, for those with one-week denials, the probability of ending the spell in the week following screening is less than for apparently similar claimants not denied.

On page 2 of table 5, we see that those with one-week denials are significantly less likely to return to work at all. This is an indication that the one-week denials are appropriately targeted, but that the penalty is too weak to modify claimants' behavior. The close correspondence between the coefficients on the return to work for those permanently denied and those with one-week denial supports the hypothesis that both groups of denied workers are not searching. One-week denials may simply reflect insufficient evidence for permanent denial.

The effects of work-test screening that does not lead to denial (WTSND) and the existence of a prior denial (PSTD) are statistically weak. For those who are screened but not denied, the insignificant (and small) coefficient on the probability of a return to work (LRJOB) is evidence that these individuals' job search is not substandard; and thus, these individuals should not have been denied. The large negative coefficient on duration (DUREND) is further evidence that no denial was called for and may indicate that the screening itself provided an incentive to return to work sooner.

Work-test denials (PSTD) appear to encourage job search in subsequent spells. For example, the probability of subsequent exhaustion is substantially reduced, and this result is statistically significant.

TABLE 5

THE EFFECT OF THE WORK TEST ON JOB-SEARCH OUTCOMES:
COEFFICIENTS OF FOUR WORK-TEST SCREENING VARIABLES

	Permanent work-test denial (WTDIND)	One Week work-test denial (WTDDEF)	Screened for work test but not denied (WTSND)	Work-Test denial in prior spell (PSTD)
Number of Cases (N)	30	35	5	10
Outcome Measures:				
1. Number of weeks from claimant contact to end of spell (DUREND)	-4.57* (-3.64)	1.59 (1.37)	-3.59 (-1.17)	-1.81 (-1.35)
2. Number of payments from claimant contact to end of spell (PYEND)	-5.57* (5.14)	.07 (.07)	-1.89 (-.72)	-1.73 (-1.49)
3. Probability spell ends within one week of claimant contact and claimant:				
A. Returns to work or withdraws (END2)	.47* (6.22)	-.13 (-1.86)	-.21 (-1.12)	.14 (1.77)
B. Returns to work (ENDW2)	.03 (.49)	-.10 (-1.81)	-.12 (.80)	.04 (.67)
C. Withdraws (ENDNW2)	.44* (7.99)	-.03 (-.56)	-.09 (.65)	.10 (1.70)

TABLE 5 (Cont'd)

	Permanent work-test denial (WTDIND)	One Week work-test denial (WTDDEF)	Screened for work test but not denied (WTSND)	Work-Test denial in prior spell (PWTID)
Outcome Measures:				
4. Probability of exhaustion of benefits (EXHST)	-.16* (-2.16)	-.02 (-.31)	-.12 (-.70)	-.16* (-2.14)
5. Probability of return to work within one year with:				
A. Any employer (LRJOB)	-.12 (-1.60)	-.14* (-2.04)	.08 (.45)	.06 (.80)
B. Same employer (SAME)	-.08 (-1.12)	-.05 (-.79)	-.26 (-1.59)	-.03 (-.36)
C. Different employer (DIFF)	-.11 (-1.47)	-.10 (-1.55)	.16 (.90)	.04 (.58)
D. Employer change is ambiguous (AMBJOB)	.06 (.92)	.01 (.17)	.19 (1.17)	.05 (.65)

NOTE: Asterisks (*) denote results significant at least at the 5-percent confidence level.

The Indirect Effect of Screening

Table 6 displays the first-stage equation required to estimate the probability of permanent denial for those not denied. The specification is almost identical to that used in estimating the direct effect. The key difference is that the screening variables are, for the most part, omitted while local office variables are included. A sizable number of variables have significant coefficients, and most coefficients are in keeping with expectations.

The results provide further evidence that the screening is targeted appropriately. For example, women and workers with low and/or irregular earnings have a high probability of being denied. Such workers are also claimants with relatively weak labor force attachment. Variables that reflect prior screening have especially strong explanatory power and indicates that characteristics that trigger screening may be apparent to claimstakers but not observable in the data set. This helps explain the low overall explanatory power of the regression. The $R^2 = .023$.*

An important inference we can draw from the equation is that there is independent variation in screening probabilities across local offices. Several of the local office variables have statistically significant coefficients, but even those that are not statistically significant are relatively large. The average probability of a permanent denial is only .005. Such variation, independent of different claimant characteristics, is essential in estimating the effect of an increase in the probability of denial.**

The equation in table 6 was used to estimate the probability of a permanent denial for each worker in the sample. The "expected" denial variable was then added to the specification shown in table 3A and the equation reestimated for each of the ten outcome variables.

* We hypothesize that the low explanatory power also reflects the inability of claimstakers to screen all individuals who are not searching, rather than an inability to distinguish searchers from nonsearchers. This may reflect a lack of resources or inability to obtain sufficient evidence to deny benefits. A lack of resources would be a strong indication that additional claimant screening would decrease payments to workers not searching.

** An identical equation was estimated for the probability of one-week denial. This equation had considerably less explanatory power and indicated that there was no variation in the probability of one-week denial across local offices. The equation, therefore, could not be used to estimate the deterrent effect of one-week denials. The lack of direct effect suggests that, even if there were variation across local offices, the one-week denial is too weak a deterrent to cause an indirect effect.

TABLE 6A

PROBABILITY OF PERMANENT DENIAL REGRESSION
(Dependent Variable = Permanent Denial - 1; 0 otherwise)

WTDIND	MALE	WHITE	NW	AGE	AGEUN	TENURE	TUN	BYE	PEINC	PNE1
	-0.0058	-0.0032	0.0073	-0.4E-4	-0.0013	-0.0005	-0.0045	-0.1E-5	-0.0134	0.0039
	-2.6836	-1.4243	1.5268	-0.4731	-0.1468	-1.2621	-1.2245	-2.4058	-1.9585	2.5612
PE2		PNE2	GOVT	MILIT	MIN	CONSTR	MFG	CHENPL	VR1	VR2
	0.1E-5	0.0034	-0.0060	-0.0038	-0.0064	-0.0006	0.0034	0.0010	-0.0018	-0.0044
	1.8667	3.1992	-0.8404	-0.5591	-0.6277	-0.1893	1.4985	2.7636	-0.5446	-1.6559
T		TSQ	RR	SPELL	PUNSI	DISC	QUIT	FILE	FILEUN	PEN
	-0.0007	0.2E-4	0.0049	0.0015	-0.0030	0.0001	0.0006	0.0002	0.0044	0.0009
	-2.4481	2.1678	3.5398	0.9456	-1.0267	0.0363	0.1773	1.3416	1.5868	0.6414
DSRD		DSRND	DVCD	DVCND	PID	PISND	DENHI	WTDH	WTDTHH	ODM
	-0.0073	0.0014	-0.0060	0.0122	-0.0054	-0.0050	0.0349	0.0151	-0.0018	0.0217
	-1.1838	0.5019	-1.8638	2.5817	-1.3551	-1.1750	5.8041	2.0266	-2.6816	2.2284
ODTHM		POD	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO10
	-0.0014	0.0026	0.0520	0.0022	0.0393	-0.0343	0.0145	-0.0120	0.0078	-0.0006
	-1.7915	0.2716	3.2274	0.2679	4.4524	-2.4119	0.8040	-0.5277	2.7429	-0.1612
LO11		LO12	LO13	LO14	LO15	LO16	LO17	CONS	SE/F	RSQ/ARSO
	0.0008	0.0065	0.0097	0.0020	0.0030	0.0156	-0.0061	-0.0127	0.0670	0.0318
	0.2519	0.5173	0.6386	0.3780	1.2256	0.6673	-0.8147	-1.5639	3.7091	0.0232

TABLE 6B

VARIABLES INCLUDED IN EQUATION (2) BUT
EXCLUDED FROM DIRECT EFFECT EQUATIONS

Local UI Office Dummies

L01	= 1 if the local office is in Window Rock
L02	= 1 if the local office is in Winslow
L03	= 1 if the local office is in Flagstaff
L04	= 1 if the local office is in Prescott
L05	= 1 if the local office is in Kingman
L06	= 1 if the local office is in Safford
L07	= 1 if the local office is in Globe
L08	= 1 if the local office is in Phoenix-industrial
L09	= 1 if the local office is in Phoenix-commercial
L010	= 1 if the local office is in Mesa
L011	= 1 if the local office is in Glendale
L012	= 1 if the local office is in Case Grande
L013	= 1 if the local office is in Douglas
L014	= 1 if the local office is in Sierra Vista
L015	= 1 if the local office is in Tucson
L016	= 1 if the local office is in Nogales
L017	= 1 if the local office is in Yuma
L018	= 1 if the local office is out of state

TABLE 6B (Cont'd)

RR	=	Replacement Ratio (WBA/13 x high quarter earnings)
DENM1	=	1 if decision is made in the last week to deny benefits in the week before
WTDM	=	1 if claimant was disqualified previously in the spell for a job-search reason
WDTMM	=	number of weeks since the in-spell job search disqualification occurred

The Effect of the Threat of Denial on Duration

Table 7 displays the estimated coefficients on the probability of denial variable. These coefficients reflect the effect of certain denial--a denial with probability of 1.0. If denials were random, the probability of a denial for a given claimant contact would be only .005. Denials are not random, however. A realistic high value of denial is .1. To measure the effect of such a denial threat, we must multiply the coefficients in table 7 by .1. Thus, claimants whose threat of denial is equal to .1 will receive about two less payments than they would have received otherwise.*

The Effect of the Threat of Denial on the Return to Work

The coefficients on the second page of table 7 show that the threat of denial substantially affects the probability that claimants will return to work. Claimants most affected by the threat are those who modify their behavior to ensure they will continue to collect benefits. That most claimants return to jobs in the ambiguous category is evidence that the workers most strongly affected by screening tend to hold low-paying, high-turnover jobs and are, therefore, likely to be close to the margin between leisure and work. Such workers may not return to full-time permanent work, but substitute some work for what would otherwise be unemployment.

* We were unable to measure the net indirect effect of screening, but we suspect the net effect is large because most claimants are influenced by the threat. Estimation of the net effect entails simply summing the effect on each claimant. But that calculation requires the data to be organized into individual observations not into cross-product matrices, as was the case in this study. We hope to make this calculation when reestimating the entire system of equations using maximum likelihood techniques.

TABLE 7

THE EFFECT OF THE PROBABILITY OF PERMANENT WORK-TEST DENIAL
ON JOB-SEARCH OUTCOMES

	<u>Probability of permanent denial</u>
	<u>(WTDHT7)</u>
Outcome Measures:	
1. Number of weeks from claimant contact to end of spell (DUREND)	-13.01 ^a (-1.26)
2. Number of payments from claimant contact to end of spell (PYEND)	-19.56* ^b (-2.19)
3. Probability spell ends within one week of claimant contact <u>and</u> claimant:	
A. Returns to work or withdraws (END2)	.18 (.28)
B. Returns to work (ENIW2)	-.18 (-.37)
C. Withdraws (ENIWN2)	.36 (.79)
4. Probability of exhaustion of benefits (EXHSTD)	.91 (1.53)
5. Probability of return to work within one year with:	
A. Any employer (LRJOB)	<u>(WTDHT7)</u> 1.93* (3.12)

TABLE 7 (Cont'd)

	<u>Probability of permanent denial</u>
B. Same employer (SAME)	.72 (1.28)
C. Different employer (DIFF)	-2.51* (-4.28)
D. Employer change is ambiguous (AMBJOB)	3.72* (6.89)

^aCoefficients predict the effect of a certain denial (probability equal to 1.0). A realistic high probability is about 0.1.

^bAsterisks (*) denote results significant at least at the 5-percent confidence level.

QUIT SCREENING

Although the work test was the major focus of our study and was studied in greatest detail, we also examined some aspects of quit screening.* Quit screening, like work-test screening, is designed to ensure that claimants receiving benefits are not voluntarily out of work. Because quitters have discretion over when they leave a given employer, they generally should be able to avoid unemployment. Available evidence shows that this is the case. A work-search-leisure model suggests that quitters who file for unemployment insurance are likely to have quit in order to leave the labor force. They file for UI because the cost of filing is low and the potential gains are high. Of course, there may be a substantial number of quitters whose employers consider their separation to be voluntary while they, themselves, feel that they were forced to leave because of "compelling personal reasons." For example, a worker may be forced to quit because of health problems or working hours are changed, making them incompatible with family responsibilities. The unemployment insurance system permits quitters who can establish compelling personal reasons to collect benefits without penalty. The key empirical issue is to determine how successful quit screening is in separating out cases where quitters leave their jobs

* In contrast to the work-test analysis, we did not examine the factors that determine the probability of being screened for quitting. We, therefore, could not determine if this type of screening showed any independent variation across local offices or measure the deterrent effects of quit screening.

intending to find new work from cases where quitting is motivated by a desire to consume leisure.

Our results show that quit screening is right on target. Claimants who quit and can not establish compelling personal reasons are much less likely to return to work than claimants who are designated as quitting for good cause. Claimants who establish compelling personal reasons are less likely to return to work than otherwise similar claimants. The difference, however, is small and could be a result of the constraints on employment, such as ill health, that necessitated the quit in the first place.

Before describing the results in detail, we will briefly explain how quit screening is carried out. At the start of each unemployment claim, the worker and his employer are asked to report the reason for separation. The worker is queried in a personal interview, and the employer reports by mail. If either party reports the separation as a quit, the claimant is screened, generally in a separate interview, to determine if the quit was for a "compelling personal reason." If the claimant can not establish that the quit was for a good cause the claimant is denied benefits. In Arizona, the denial used to be for a fixed period, generally six weeks, with a loss of entitlement equal to six times the WBA. The law was changed in 1968 (about halfway through the period covered by our data) to make the denial permanent.

Quit screening results are displayed in table 8. The figures in table 8 are derived from the same equations used to describe the effects of work-test screening shown in table 5. Results are deleted from the table where quit-screening coefficients show no statistically significant effect for a given dependent variable.

The key results are found on line 3A. In column 1, we see that the probability of returning to work within a year was .39 less for a claimant who was denied for having quit than for an otherwise similar claimant. In column 2, we see that quitters who are not denied, and therefore must have established good cause for their quits, are only .05 less likely to return to work. Although both results are statistically different from zero, the much lower probability for those quitting without good cause is strong evidence that the UI staff has successfully separated quitters into two groups--those who are searching for work and those not searching.

Further support for the accuracy of quit screening determinations is found when the return to work is decomposed into three separate categories on lines 3B through 3D. In particular, we see that the greatest difference between the two groups of quitters is in the probability of returning to work with a different employer. As mentioned earlier. The "different employer" category is indicative of steady employment. Thus, although quitters naturally are unlikely to fall into the "return-to-the-same-employer" category, those who quit for good

cause are very likely to return to work at steady jobs while those who quit without compelling reasons are much less likely to hold steady jobs.

Table 8 also provides evidence that those who quit with good cause have a slightly higher probability of exhausting benefits (.04 higher) than otherwise similar claimants. This may explain why the average duration of unemployment is six-tenths of a week longer for those who quit with good cause.*

CONCLUSIONS

These are the key findings:

- WORK-TEST SCREENING

- Claimants permanently denied benefits received substantially fewer UI payments
- Claimants denied for one week did not receive less payments
- Denials are targeted on the appropriate population
 - Those denied show little evidence of job search
 - The probability of denial is greatest for claimants whose characteristics are associated with weak labor force attachment
- The threat of denial substantially reduces the number of payments received and encourages claimants to return to at least part-time work

* We speculate that the duration of unemployment of those who experience quit denials is not significantly different from zero because of the different penalties imposed on those denied in the two halves of the study period. Those permanently denied generally terminated their spell at week one, while those who received six-week denials could claim for long periods. The fact that many of those who experience quit denials delayed filing until after they served the penalty period suggests that such claimants anticipated long durations of claim. This is especially likely, given that if quitters behaved like average claimants they would generally end their spells before the penalty expires. We hope to examine the separate effects of these two types of denials in the near future.

TABLE 8

THE EFFECT OF QUIT SCREENING ON JOB SEARCH

	Quit, denied (DSRD)	Quit, not denied (DSRND)
Number of Cases (N)	134	74
Outcome Measures:		
I. Number of weeks from claimant contact to end of spell (DUREND)	.24 (.39)	.66* ^a (2.31)
II. Probability of exhaustion of benefits (EXHST)	.07 (1.96)	.04* (2.23)
III. Probability of return to work within one year with:		
A. Any employer (LRJOB)	-.39* (-10.47)	-.05* (-3.08)
B. Same employer (SAME)	-.19* (-5.56)	-.11* (7.37)
C. Different employer (DIFF)	-.01 (-.30)	.16* (9.91)
D. Employer change is ambiguous AMBJOB)	-.19* (-5.86)	-.10* (-6.65)

^aAsterisks (*) denote results significant at least at the 5-percent confidence level.

• QUIT SCREENING

- Denials are targeted on the appropriate population
- Those denied show little evidence of job search
- Quitters who establish compelling personal reasons for their quits are only slightly more likely to withdraw from the labor force than other claimants

We base these conclusions on three factors:

1. Statistical strength of the results and their strong internal consistency
2. Consistency of the results with economic theory
3. Consistency of the results with earlier empirical studies.

The conclusions suggest that strengthening screening could provide policy makers with a means to reduce the cost of UI without adversely affecting claimants legitimately searching for work. In contrast, policy initiatives directed at reducing benefit levels pose a dilemma for policymakers. Although such reductions would reduce disincentives to work and save money they would also reduce the protection UI offers workers against economic uncertainty.

Screening can be made more effective by increasing the likelihood of catching individuals who violate the collection criteria. Information about the monetary costs of increasing screening activity is required before we can be certain increased screening activity is warranted.

Screening can also be made more effective by increasing the penalty for a given violation. Since there is no additional monetary cost involved, increasing stringency in this way appears to be warranted. The tendency of states, such as Arizona, to switch from fixed duration to permanent denials for the quit penalty is an example of this type of change.

BIBLIOGRAPHY

- [1] Burgess, P.L. and Kingston, J.L. "Impact of Unemployment Insurance Benefits on Reemployment Success." Industrial and Labor Relations Review 30 (1976), 25-31
- [2] Classen, K.P. "The Effect of Unemployment Insurance on the Duration of Unemployment and Subsequent Earnings." Industrial and Labor Relations Review 30 (1977), 438-444
- [3] Classen, K.P. "Unemployment Insurance and Job Search." S.A. Lippman and J.J. McCall, eds. Studies in the Economics of Search, Amsterdam, North Holland Publishing Co., 1979, 191-219
- [4] Ehrenberg, R.G. and Qaxaca, R.L. "Unemployment Insurance, Duration of Unemployment and Subsequent Wage Gain." American Economic Review 66 (1976), 754-766
- [5] Felder, H.E. "A Statistical Evaluation of the Impact of Disqualification Provisions of State Unemployment Insurance Laws." Unemployment Insurance Occasional Paper 79-1, U.S. Department of Labor (Washington, D.C., Employment and Training Administration), 1979
- [6] Holen, A. "Effects of Unemployment Insurance Entitlement on Duration and Job Search Outcome." Industrial and Labor Relations Review 30 (1977), 445-450
- [7] Holen, A. and Horowitz, S.A. "The Effect of Unemployment Insurance and Eligibility Enforcement on Unemployment." Journal of Law and Economics, Vol. 12 (1976), 403-31
- [8] Horowitz, S.A. "A Model of Unemployment Insurance and the Work Test." Industrial and Labor Relations Review 30 (1977), 462-465
- [9] Jacobson, L. and Classen, K. Arizona Employment and Unemployment Data Code Book, Public Research Institute, CRC 351, 1978
- [10] McCall, J.J. "Economics of Information and Job Search." Quarterly Journal of Economics 84 (1970), 113-26
- [11] Mortensen, D.T. "Unemployment Insurance, the Duration of Unemployment, and the Phillips Curve." American Economic Review 60 (1970), 847-62
- [12] Mortensen, D.T. "Unemployment Insurance and Job Search Decisions." Industrial and Labor Relations Review 30 (1977), 505-17

BIBLIOGRAPHY (Cont'd)

- [13] Nickell, S. "Estimating the Probability of Leaving Unemployment." Econometrica 47 (1979), 1249-1266

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- 73-1 *The Retail Price of Heroin: Estimation and Applications*, George Brown and Lester Silverman, May 1973.
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